



App. No. 10/665,910

Amended, dated March 2, 2005

Reply to Office Action of February 2, 2005

PATENT

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings of claims in the application:

**Listing of Claims:**

1. (withdrawn) A thin-film magnetic head comprising:  
magnetic layers each containing two or more elements of Co, Ni, and Fe;  
wherein a magnetic layer, of said magnetic layers, contains Co, Ni, and Fe,  
with  $20 \leq \text{Co} \leq 40 \text{ wt\%}$ ,  $0 < \text{Ni} \leq 2 \text{ wt\%}$ , and  $60 \leq \text{Fe} \leq 80 \text{ wt\%}$ , and has a saturation  
magnetic flux density of 23,000 gauss or more, and the thickness of said magnetic layer is  
3 $\mu\text{m}$  or more.
2. (canceled)
3. (previously presented) A process for production of a thin-film  
magnetic head as defined in claim 1, wherein the magnetic layers are formed in a plating bath  
containing saccharin sodium as a stress relaxing agent.
4. (original) A process for production of a thin-film magnetic head as  
defined in claim 3, wherein the plating bath contains saccharin sodium in an amount of 0.5-2  
g/L.
5. (withdrawn) A thin-film magnetic head of write-read separate type in  
which a read element is a magneto-resistive effect element and a write element is an  
inductive magnetic head,  
wherein upper and lower magnetic cores of a write head partly or entirely have  
magnetic layers consisting of magnetic films each containing two or more elements of Co,  
Ni, and Fe, a magnetic layer, of the magnetic layers, is composed of a magnetic film, which is  
a soft magnetic thin film containing CoNiFe, with  $20 \leq \text{Co} \leq 40 \text{ wt\%}$ ,  $0 < \text{Ni} \leq 2 \text{ wt\%}$ , and  
 $60 \leq \text{Fe} \leq 80 \text{ wt\%}$ , and having a saturation magnetic flux density of 23,000 gauss or more,  
and the thickness of the magnetic layer is 3 $\mu\text{m}$  or more.

6. (withdrawn) A thin-film magnetic head as defined in claim 1, wherein said magnetic layer is the nearest layer to said magnetic gap of said magnetic layers.

7. (withdrawn) A thin-film magnetic head as defined in claim 5, wherein said magnetic layer is the nearest layer to said magnetic gap of said magnetic layers.

8. (previously presented) A method for producing a thin-film magnetic head, comprising:  
forming a magnetic core having magnetic layers; and  
forming a magnetic gap film facing said magnetic core;  
wherein a magnetic layer, of said magnetic layers, is formed by electroplating in a plating bath having pH value of 2 or less;  
wherein said magnetic layer contains Co, Ni, and Fe, with  $20 \leq \text{Co} \leq 40$  wt%,  $0 < \text{Ni} \leq 2$  wt%, and  $60 \leq \text{Fe} \leq 80$  wt%, and has a saturation magnetic flux density of 23,000 gauss or more.

9. (previously presented) A method for producing a thin-film magnetic head as defined in claim 8, wherein said magnetic core includes an upper magnetic core and a lower magnetic core.

10. (previously presented) A method for producing a thin-film magnetic head as defined in claim 9, wherein either of said upper magnetic core or said lower magnetic core has said magnetic layer.

11. (previously presented) A method for producing a thin-film magnetic head as defined in claim 8, wherein said magnetic layer is the nearest layer to said magnetic gap of said magnetic layers.